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Indian Standard

CODE OF PRACTICE FOR REINFORCED BINDING OF LIBRARY BOOKS AND PERIODICALS

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BUREAU OF INDIAN STANDARDS MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI 110002

Indian Standard

CODE OF PRACTICE FOR REINFORCED BINDING OF LIBRARY BOOKS AND PERIODICALS

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CODE OF PRACTICE FOR REINFORCED BINDING OF LIBRARY BOOKS AND PERIODICALS

O. FOREWORD

- **0.1** This Indian Standard was adopted by the Indian Standards Institution on 22 March 1965, after the draft finalized by the Documentation Sectional Committee had been approved by the Executive Committee.
- **0.2** Large sums of money are now being spent for the purchase of books and periodicals for libraries. At this stage, it is desirable that necessary steps be taken to ensure durability in the use of books and periodicals which are subjected to frequent and prolonged handling. The subject of reinforced library bindings, therefore, deserves special attention.
- **0.3** Book binding is the multiple operation by which the flat printed sheets are converted into a single physical unit in which they can be used by the reader and kept on the shelf. Library binding, as its name implies, is used by libraries for rebinding books which otherwise would be worn out by constant use. The object of the library style of binding is to obtain maximum strength for minimum cost. Every operation is used for strength and utility. Normally, a library bound book should last 250 issues (out of library) before the necessity of rebinding should arise.
- **0.4** Viewed from the angle of binding, a book is a chain of 11 links. It is a symmetrical link with paper as the central link.

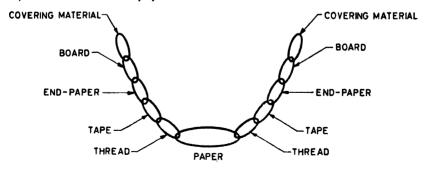


Fig. 1 Schematic Representation of a Book

- **0.4.1** It is a truism that the strength of a chain is determined by its weakest link. This means that it is uneconomical to make any of the links more durable than the others. Of the 11 links, the paper on which the book is printed has to be accepted by the librarian and the binder. It, therefore, follows that the quality of the materials used to form the remaining links should be commensurate with the durability of the paper. In particular, in the case of ephemeral books on poor paper, binding can be done cheaply by using cheap materials. Again, for a book printed on weak antique or feather-weight paper which will perish soon, binding can be done cheaply. A book printed on art paper is a problem. If it is only of ephemeral value, its binding may be done cheaply. If it happens to be a book of permanent value, special and often costly methods have to be adopted for its binding.
- 0.5 At present, however, there is an under supply of suitable binding materials, such as leather, buckram, cardboard and tape, of right strength and quality. In view of this difficulty, many of the libraries are being driven to the necessity of using inferior weak leather, weak strawboard, calico and other poor cloth. While such poor stuff may be taken to be sufficient for binding books for limited personal use, it will shorten the life of books meant for libraries having heavy circulation, such as that of universities, colleges, etc. The preparation of this code was, therefore, taken up to provide guidance to libraries and book binders. This Code is also expected to provide a fillip to the industries producing leather, cardboard, tape, etc, for book binding purposes.
- **0.6** New materials, such as nylon thread, nylon tape, nylon end-papers, nylon covering materials, terylene end-papers, and plastic for covering, have started coming into vogue. Their suitability for reinforced library binding has, however, not yet been sufficiently investigated. In view of this, for the present, this code does not cover these materials. They may be included in some later revision of this code when sufficient data regarding the use of these materials have become available.
- **0.7** The diagrams given in this code are taken from Dr. S. R. Ranganathan's "Social bibliography or physical bibliography for librarians" published by the University of Delhi (1952).

1. SCOPE

1.1 This code covers terminology, styles, operations and materials employed for reinforced binding of library books and periodicals.

2. TERMINOLOGY

2.1 For the purpose of this standard, the definitions given in Appendix A shall apply.

3. STYLES AND COLOUR

3.1 Styles — The various styles of book binding and the particular use to which they are put by librarians are given in Table 1.

TABLE 1 STYLES OF LIBRARY BINDING

SL No.	Style	RECOMMENDED Use
(1)	(2)	(3)
i) ii) iii)	Full morocco Half morocco and linen or art canvas Full linen or art canvas	Rare books and books of permanent value Periodicals and books in constant use Periodicals and books not in constant use
iv)	Half linen or art canvas or calico and marble	Pamphlets and books with weak paper

3.2 Colour — The colour of the covering material should be fast and soothing to the eye.

4. ASSEMBLING

- **4.1 Collating** All the sections of the book shall be examined in respect of their sound condition, and collated and secured in proper sequence.
- 4.1.1 Whether the book will stand rebinding should be determined before the order for the rebinding is given.
- 4.1.2 In the case of a periodical or a book published in instalments, all the issues of a volume and the sections making up the title, contents pages and indexes shall also be collated and assembled in the proper sequence.
- 4.1.3 Covers and advertisement sheets in periodicals shall not be bound in unless (a) they are included in the pagination of the text, and (b) they are required to be retained for other reasons.
- 4.1.4 As far as practicable, assembling into volumes more than 7 cm in thickness should be avoided.

5. PREPARATION FOR SEWING

- 5.1 The first and the last sections of all books shall be enclosed at the back in linen or muslin strips.
- 5.2 All sections broken at the back shall be lined inside and outside at the fold with strips of rag, tissue paper, or with unsized muslin or linen strips, preferably serrated.

- 5.2.1 All torn pages shall be joined with transparent tissue paper or similar material without prejudice to readability.
- **5.2.2** When the paper of the volume is deteriorated and brittle, it shall be reinforced with transparent tissue paper or other similar material without prejudice to readability.
- 5.3 All folded plates, maps, plans and other extended sheets not forming part of a normal section shall be mounted on guards of linen or muslin or tough paper. Pasting of leaves larger than the format of the book shall not be permitted. All extended sheets shall be reinforced at the folds.
- 5.4 All folded plates, maps, plans and other extended sheets shall be reinforced and, where necessary, be mounted on jaconet or thin linen or muslin of good quality.
- 5.5 Pockets To hold maps, charts and other similar materials which cannot be bound with the volume, a separate pocket shall be secured at the end of the volume in such a way that the overall shape of the volume is as near to the normal as possible.
- 5.6 End-Papers There shall be end-papers one at each end. Each end-paper shall consist of a section giving four leaves. The end-papers shall be cut across the machine direction from head to tail. The end-papers shall be provided with strong linen or cloth joints.

6. SEWING

- 6.1 Books printed on paper of good quality shall be sewn all along one section on (except where thinness of paper makes it necessary to sew two sections on) with thread of suitable thickness over linen or cotton tapes.
- 6.2 Each of the end-papers shall be sewn on as a section.
- 6.3 Unbleached linen or cotton tapes shall be used. The width of the tape shall be 2 cm. There shall be one tape within 2.5 cm of the head and another within 2.5 cm from the tail. The number of tapes will depend upon the height of the book as shown below:

Height	No. of Tapes 2
cm	
Not more than 15	
Between 15 and 25	3
Between 25 and 35	4

For books of greater height, the number of tapes shall be increased suitably. The tapes, in excess of two, shall be equally spaced between the tapes near the head and the tail of the books.

6.4 Straight line machine stitching shall not be used.

6.5 Sewing shall be so done that when the book is opened, the pages of its two halves lie flat on a flat surface.

7. SPLIT BOARD

7.1 The thinner member of the board shall be closer to the book.

8. FORWARDING

- **8.1 Cutting Edges** The edges of the book shall be cut accurately leaving margins as wide as possible. In no case, the cutting should affect the printed portion.
- **8.1.1** A deckle-edged book should not be cut at the fore-edge and the tail-edge, but the top edge should be cut.
 - 8.1.2 Edges shall be sprinkled, stained or left plain, as instructed.
- 8.2 Gluing, Rounding, Backing and Lining The spine shall be well rounded and backed. For thinner books, the round should be kept very small and increased proportionately for thicker books. In other words, the depth of the joint should be the same as the thickness of the boards.
 - 8.2.1 The spine shall be glued.
- **8.2.2** The spine shall be lined with muslin extending to within 5 mm of head and tail of the book and well on to each end-paper.

8.3 Attaching the Boards

8.3.1 French joints shall be used in binding (see Fig. 2).

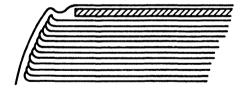


Fig. 2 French Joint

- 8.3.2 Each slip of the tape shall be firmly inserted into the split board.
- 8.3.3 The outermost end-paper at each end shall be cut to the necessary width and inserted into the split board.
- 8.3.4 The surviving outermost end-paper at each end shall be pasted down on the board.

8.4 Covering

8.4.1 Leather used as covering material shall neither be pared too thin

nor stretched too tightly; the former for consideration of strength and the latter to allow for play within the French joint.

8.4.2 The covering material shall be attached directly to the spine of the book.

NOTE — This will make the pages of the two halves of the open book to lie flat.



Hollow Back (Not Recommended)

Flexible Back (Recommended)

FIG. 3 METHODS OF ATTACHMENT OF THE COVERING MATERIAL TO THE SPINE OF THE BOOK

- **8.4.3** The covering material of the spine shall extend over the boards to at least one-third of the width of the book.
- **8.4.4** The boards shall be slightly rounded at the corners. The covering material shall be neatly folded and not mitred.
- **8.5 Headbands** Headbands may be worked or pieces of string may be inserted into the turning of the leather at the head and tail in the place of headbands.
- 8.6 Irregularities on the spine shall be smoothed out.

9. FINISHING

9.1 Lettering

- **9.1.1** The lettering shall be durable and easily readable.
- 9.1.2 The lettering may be in fast colour or gold as desired.
- 9.1.3 The title in the lettering shall normally be 25 mm below the head.
- 9.1.4 The name of the author shall be on the upper half of the spine of the book at least 25 mm below the title.
- 9.1.5 The lettering done along the spine shall be such that it is directly readable when the book is lying flat, front cover uppermost.
- **9.1.6** The bottom line of the call number on the spine of the book shall normally be 25 mm above the tail.
- **9.2** The surface may be varnished with shellac or cellulose acetate or any other material not harmful to the covering material.

10. MATERIALS

- 10.1 Board The board shall be good quality, single ply, acid-free binder's board with qualities approximating to those of mill board.
- 10.2 Linen Unbleached book cloth made of flax.
- 10.3 End-Paper shall be made of good, thick, strong paper with high folding strength.
- 10.4 Glue Best quality flexible glue mixed with a suitable insecticide conforming to IS: 562-1962*, not harmful to man.
- 10.5 Paste made from best quality starch and mixed with a suitable insecticide conforming to IS: 562-1962*, not harmful to man.
- 10.6 Leather Only leather from mature animals shall be used. It should be vegetable tanned and not acid tanned. It should not be artificially grained or dyed. Goatskin, also called morocco, is recommended. The leather shall further conform to the requirements prescribed in IS: 2960-1964†.
- 10.7 Tape shall be of linen or unbleached cotton.
- 10.8 Thread shall be strong and durable and shall be of the linen or unbleached cotton and soft enough not to injure the paper at any time.

Note -- Wire stitching should not be used.

APPENDIX A

(Clause 2.1)

TERMINOLOGY

A-1. LIST OF TERMS DEFINED

A-1.1 The following terms, arranged alphabetically, have been defined in A-2; the number in brackets against each term is the number of the clause under which the definition of that term appears:

Board paper (A-2.10)

Collating (A-2.3)

^{*}Specification for BHC water dispersible powder concentrates (second revision).

[†]Specification for book binding leather.

End-papers (A-2.6)

Finishing (**A-2.15**)

French joint (A-2.11)

Half binding (A-2.12)

Head (A-2.16)

Headbands (A-2.14)

Issue of a periodical (A-2.5)

Mitring (**A-2.13**)

Overcasting (A-2.7)

Section (A-2.2)

Sheet (A-2.1)

Size (A-2.19)

Slips (**A-2.9**)

Split board (A-2.8)

Square (**A-2.18**)

Tail (A-2.17)

Volume of periodical (A-2.4)

A-2. DEFINITIONS

- **A-2.1 Sheet** The full size of the paper as printed, forming a section when folded.
- **A-2.2 Section** A unit formed by a number of double leaves inserted one into another so as to have a continuous pagination.
- **A-2.3 Collating** The operation of examining a book to check completion and correct sequence of the gathered sections.
- **A-2.4 Volume of Periodical** A set of consecutive sections of a periodical provided with title-page, contents and index to cover them and intended to be bound as an independent book.
- A-2.5 Issue of a Periodical A set of consecutive sections of a volume of a periodical issued at one time.
- **A-2.6 End-Papers** Papers added at the beginning and end of a book by the binder.
- **A-2.7 Overcasting** Over-sewing the back edges of single leaves or weak sections.
- A-2.8 Split Board The board used in reinforced library binding, made

by two mill-boards—one thick and the other thin—being glued together, except in the portion to be kept split. The depth of the split portion shall be not less than one-sixth of the width of the board.

- **A-2.9 Slips** The ends of the tape on which the book is stitched, that are attached to the board.
- A-2.10 Board Paper The part of the end-paper pasted on to the boards.
- **A-2.11 French Joint** The space provided between the board and the spine.

Note — French joint enables the board to swing back more freely than if they were fixed closely to the spine. This gives a greater area of the covering material to stand the strain of closing and opening the book.

- **A-2.12 Half Binding** Covering the back and a part of the sides and the corners with material stronger than the one used for the rest of the sides.
- A-2.13 Mitring A joint at 45° as in the leather on the inside of the boards.
- **A-2.14 Headbands** Strips of thread worked at the head and tail of the back.
- **A-2.15 Finishing** Comprises lettering, tooling and polishing.
- A-2.16 Head The top of a book.
- A-2.17 Tail The bottom of a book.
- A-2.18 Square The portion of the boards projecting beyond the edges of the book.
- A-2.19 Size The size of a book is determined by the measurement of the board.

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‡Peenya Industrial Area, 1st Stage, Bangalore-Tumkur Road, BANGALORE 560058	839 49 55
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Plot No. 43, Sector 16 A, Mathura Road, FARIDABAD 121001	91-28 88 01
Savitri Complex, 116 G.T. Road, GHAZIABAD 201001	91-71 19 98
53/5 Ward No.29, R.G. Barua Road, 5th By-lane, GUWAHATI 781003	56 65 08
5-8-56C, L.N. Gupta Marg, Nampally Station Road, HYDERABAD 500001	320 10 84
E-52, Chitaranjan Marg, C- Scheme, JAIPUR 302001	37 38 79
117/418 B, Sarvodaya Nagar, KANPUR 208005	21 68 76
Seth Bhawan, 2nd Floor, Behind Leela Cinema, Naval Kishore Road, LUCKNOW 226005	21 89 23
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TO

IS: 3050-1965 CODE OF PRACTICE FOR REINFORCED BINDING OF LIBRARY BOOKS AND PERIODICALS

Alterations

- (Page 5, clause 6.3) Substitute the following for the existing clause:
 - '6.3 Unbleached linen or cotton tapes shall be used. The width of the tape shall be 2 cm. There shall be two kettle stitches, each at a distance of 2.5 cm from head and tail of the book. The number of tapes will depend upon the height of the book as shown below:

Height	Number of Tapes
cm	Min
Below 25	2
25 and above but below 35	3
35 and above but up to 50	4

For books of greater height, the number of tapes shall be increased suitably. The tapes shall be equally spaced between two kettle stitches.

Addendum

(Page 10, clause A-2.19) — Add the following new clause after A-2.19:

'A-2.20 Kettle Stitch (also Catch Stitch) — A stitch made at the head and tail of the book to fasten one section to another when a book is being sewed.'